

## I CLAIM:

1           1. An assembly for electrically interconnecting two  
2 parts relatively rotatable about an axis, the assembly  
3 comprising:

4           an elongated multiconductor flat ribbon having a pair  
5 of ends and wound in a spiral centered on the axis, one of the  
6 ends being secured to one of the parts and the other of the ends  
7 being secured to the other part.

1           2. The electrical connecting assembly defined in claim  
2 1 wherein the one end is secured to the one part inside the  
3 spiral and the other end is outside the spiral.

1           3. The electrical connecting assembly defined in claim  
2 1 wherein the ribbon has a width dimension extending generally  
3 parallel to the axis.

1           4. The electrical connecting assembly defined in claim  
2 3 wherein the flat ribbon is comprised of a flat elongated tape  
3 and a plurality of parallel conductive traces on the tape  
4 extending between the ends.

1           5. The electrical connecting assembly defined in claim  
2   4 wherein the traces are flat strips with a width dimension  
3   parallel to the width dimension of the tape.

1           6. The electrical connecting assembly defined in claim  
2   4 wherein the tape is nonconductive.

1           7. The electrical connecting assembly defined in claim  
2   4 wherein the tape is flexible.

1           8. The electrical connecting assembly defined in claim  
2   4 wherein the spiral is generally cylindrical and centered on the  
3   axis.

1           9. The electrical connecting assembly defined in claim  
2   4, further comprising  
3        respective rigid circuit boards at the ends having  
4   contact pads connected to the traces.

1           10. The electrical connecting assembly defined in  
2 claim 4 wherein the tape is L-shaped and has one leg forming the  
3 spiral and an other leg extending axially from the spiral.

1           11. The electrical connecting assembly defined in  
2 claim 10 wherein the other leg is formed with a loop projecting  
3 transversely of the axis.

1           12. The electrical connecting assembly defined in  
2 claim 1 wherein the one part is a bonding head.